

REMARKS

Claims 1-4, 6-22, and 24-34 are currently pending and claims 5, 23, and 35-52 are canceled.

1. The PTO has restricted the claims into Group I (claims 1-4, 6-22, and 24-34) and Group II (claims 35-52). Applicants affirm election of the invention of Group I (claims 1-4, 6-22, and 24-34). Claims 35-52 have been canceled.

2. Claims 6, 12, 13, 15, 16, 20, 22, 27, 30 and 34 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The PTO cites *Amgen, Inc. v. Chugai Pharmaceutical Co., Ltd.*, 18 USPQ 2d 1016 (Fed. Cir. 1991), herein “Amgen”. In fact, the analysis of the term “about” is specific to the facts of Amgen and the decision clearly states that the holdings do not preclude any and all uses of the term “about” in patent claims, since such a term may be acceptable in appropriate fact situations. Moreover, in contrast to the assertion by the PTO, Amgen does not appear to address whether “at least” and “about” may be used together. Indeed, a query of PTO records shows that the phrase “at least about” is present in the claims of 68,461 patents issued since 1976 with patents issued as late as June 26, 2007. As such, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. §112, second paragraph rejection.

3. Claims 1-4, 8-11, 13-19, 22, 25, 26 and 28-33 were rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) is obvious over Bugosh (US 2,915,475); and claims 1-4, 6-22, and 24-34 were rejected under 35 U.S.C. §103(a) as obvious over Bugosh. Applicants respectfully traverse this rejection for the following reasons.

Present claim 1 is directed to a surface coating solution including a surface coating base and boehmite particles provided in the surface coating base. The boehmite particles include mainly anisotropically-shaped particles having an aspect ratio of at least 3:1. The surface coating solution has a flow and leveling of at least about 6 mils.

Present claim 22 is directed to a surface coating solution including boehmite particles comprising mainly anisotropically-shaped particles having an aspect ratio of at least about 3:1 and a longest dimension of at least 50 nm. The surface coating solution has a flow and leveling of at least about 6 mils.

Bugosh is directed to fibrous aluminum monohydrate particles. Bugosh further discloses that fibrous boehmite can be used as reinforcing filler in making plastic films, coatings, paints, adhesives, or other plastic articles. The fibrous boehmite may be mixed with aqueous dispersions of polymers. (Bugosh, col. 29, ll. 1-21). However, Bugosh is silent regarding characteristics of the coatings and paints, such as flow and leveling, sag resistance, and set-to-touch dry time characteristics.

While, as disclosed by Bugosh, it may have been known to incorporate boehmite into coatings, paints, and adhesives, Applicants have discovered that anisotropic boehmite particles, and in particular, anisotropic boehmite particles formed using boehmite seed crystals, when used in the process outlined in the application, advantageously produce surface coatings having desirable characteristics, such as desirable flow and leveling, sag resistance, set-to-touch dry time, and shear viscosity recovery. Specifically, Applicants have discovered that such desirable properties in a surface coating, such as a latex paint, result from activating anisotropic boehmite particles prior to incorporating such particles into a latex solution. In particular, the anisotropic boehmite particles may be activated through addition of basic amine compounds, such as ammonium hydroxide, alkali or alkali earth metal salts, or particular nanoclays. When such activated anisotropic boehmite particles are incorporated into a surface coating solution, particular embodiments of the surface coating solution exhibit the claimed properties of flow and leveling, sag resistance, set-to-touch dry time, and shear viscosity recovery. Bugosh is silent regarding processing of a surface coating and merely states that boehmite particles may be added to coatings, paints, and adhesives.

As such, Bugosh fails to teach or suggest, either explicitly or inherently, the claimed surface coating solution. In particular, Bugosh fails to teach or suggest a surface coating solution that includes anisotropic boehmite particles and that has flow and leveling of at least about 6 mils.

Furthermore, the PTO appears to assert through Official Notice that the claimed properties of flow and leveling, sag resistance, dry time, shear viscosity recovery, and pH are inherent to paint formulations. In fact, Applicants have provided an example TEW-464 (Present Application, Table 1) that demonstrates that such properties are not inherent to paints. In addition, Applicants respectfully traverse such Official Notice and request a reference in accordance with MPEP 2144.03. In particular, no specific factual findings predicated on sound technical and scientific reasoning to support the PTO's conclusion is provided.

For at least the foregoing reasons, claims 1-4, 6-22, and 24-34 are patentable over Bugosh. As such, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. §102(b) and 35 U.S.C. §103(a) rejections.

4. Claims 1-4, 6-9, 12 and 15-21 were rejected under 35 U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Yoshino et al. (US 6,576,342; herein "Yoshino") and claims 1-4, 6-12 and 15-21 were rejected under 35 U.S.C. §103(a) as obvious over Yoshino. Applicants respectfully traverse these rejections for the following reasons.

Yoshino is directed to a printing medium provided on a base material with a porous ink receiving layer which includes an alumina hydrate and a binder. Yoshino is silent regarding flow and leveling values, sag resistance and dry time, shear viscosity recovery, and pH. However, the PTO asserts that the composition of Yoshino inherently meets the claimed flow and leveling values, sag resistance, dry time, low shear recovery and pH.

In order to inherently disclose a given property, a reference must necessarily have the recited characteristics. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic. (See generally, MPEP 2112). As above, the claimed properties result from use of particular anisotropic boehmite particles in a specific process for forming a coating solution. Yoshino does not disclose a surface coating solution that necessarily exhibits the claimed properties and does not disclose a process that necessarily results in a surface coating solution that exhibits the claimed properties. Thus, Yoshino does not inherently disclose the claimed surface coating solution.

Further, it appears that the PTO asserts that it would have been obvious to one skilled in the art to change the concentration of boehmite in order to obtain different coating thicknesses or coating times on different substrates. Here too, Yoshino is silent regarding the process of the present application that leads to such properties. Further, Applicants traverse the apparent Official Notice that such a change in concentration of boehmite was known to result in the claimed properties. There is no teaching or suggestion absent the present disclosure that manipulation of the concentration of boehmite would alter the coating thickness or the coating times to the claimed values as posited by the PTO.

For at least the foregoing reasons, claims 1-4, 6-12 and 15-21 are patentable over Yoshino. As such, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. §102(e) and 35 U.S.C. §103(a) rejections.

5. Claims 1-3, 8-11, 13-19, 22 and 25-33 were rejected under 35 U.S.C. §102(b) as anticipated by, or in the alternative, under 35 U.S.C. §103(a) as obvious over Napier (US 3,357,791). Applicants respectfully traverse this rejection for the following reasons.

Napier is directed to a process for producing colloidal sized particles of alumina monohydrate. Napier further discloses that fibrous boehmite may be used at a concentration of 0.5 to 25% in aqueous floor wax emulsions or pastes utilizing conventional components. (Napier, col. 11, ll. 63-71). Napier fails to teach or suggest the claimed flow and leveling characteristics.

As above, the claimed flow and leveling characteristics, among others, result from the use of particular anisotropic boehmite particles in a specific process for forming a surface coating solution. Napier fails to teach or suggest a surface coating solution having the claimed flow and leveling characteristics and fails to teach or suggest a method that necessarily produces a surface coating solution having the claimed flow and leveling characteristics. As such, Napier fails to teach or suggest, either explicitly or inherently, each and every element of claims 1 and 22.

For at least the foregoing reasons, claims 1-3, 8-11, 13-19, 22 and 25-33 are patentable over Napier. As such, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. §102(b) and 35 U.S.C. §103(a) rejections.

6. Claims 1-4, 6-22, and 24-34 were rejected under 35 U.S.C. §103(a) as obvious over Napier with or without Bugosh. Applicants respectfully traverse this rejection.

As above, both Napier and Bugosh fail to teach or even remotely suggest a surface coating solution having a flow and leveling characteristic of at least about 6 mils. As such, Napier and Bugosh, alone or in combination, fail to teach each and every element of claims 1 and 22.

For at least the foregoing reasons, claims 1-4, 6-22, and 24-34 are patentable over Napier alone or in view of Bugosh. As such, Applicants respectfully request reconsideration of the 35 U.S.C. §103(a) rejection.


Applicants respectfully submit that the present application is now in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims.

Should the Examiner deem that any further action by the Applicants would be desirable for placing this application in even better condition for issue, the Examiner is requested to telephone Applicants' undersigned representative at the number listed below.

Applicants do not believe that any additional fees are due, but if the Commissioner believes additional fees are due, the Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 50-3797.

Respectfully submitted,

Date 7-12-07



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